

# Advanced Concept Train



## **Railroad Impact:**

- The ACT is a technology demonstration showcasing technologies to improve safety of switching operations and efficiency of train operations. The train consists of five test cars, which include an intermodal well car, a garbage gondola car, a tank car, an open coal hopper car, and a covered hopper car.
- 24/7 tracking and monitoring of all cars for equipment defects and dynamic stability

**FRA Task Monitor:** Monique Stewart & John Punwani

## **Project Description:**

- All cars equipped with electrically controlled pneumatic (ECP) brakes
- Locomotive security system with integrated engineer fingerprint verification
- Hazardous material car security and performance monitoring
- Container well car equipped with sensors for security monitoring and container tracking
- Each car equipped with power generator bearing for generation and management of electricity
- Automatic tri-coupler, advanced hand brake and advanced angle cock on cars
- Advanced uncoupling and remote controlled hand brake release
- ACT demonstrations on each major railroad
- DOT Strategic Plan: Mobility, Safety, Global Connectivity, Security

## **Future Objective:**

Partner with railroads and shippers to install ACT hardware on demonstration ACT train for demonstrations of safety, efficiency, and remote operations at various railroads. New sensor technology will also enhance safety and security